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THIS IS UNEVALUATED INFORMATION

1. In April 1953, a conference on infrared techniques was held in Jena. The conference was attended by Paul Goerlich of VEB Carl Zeiss, Dipl. Ing. Hess of the Central Institute for Telecommunication Engineering, Dipl. Ing. Wenderlich of the Telecommunication Engineering Plant at Berlin-Oberschoeneweide and Dr. Eckardt of the Institut fuer Festkoerperforschung (Laboratory for Research Work on Solid Bodies) in Berlin. At the conference, Dr. Goerlich proposed that the development of image converters be started at the Zeiss Works. The other participants of the conference rejected this proposal and said that the development of this equipment should take place at the Berlin-Oberschoeneweide Telecommunication Engineering Plant because such development work had already been started there by Dr. Eckardt who, in the meantime, had left the plant.

2. From rumors heard in December 1954 it was inferred that the development of image converters had been discontinued at the Telecommunication Plant and shifted to VEB Carl Zeiss Jena and VEB Zeiss Ikon Dresden.

3. In January 1955, work on the development of radiation receivers was being done in Jena. Dr. Krohs, the chief of the Photocell Laboratory, and Herr Hauenstein did the main work on infrared techniques. In the Electric Laboratory, Karl Prinz worked on thermocouple elements and bolometers functioning on all wave lengths but of lesser sensivity than the photocells, which operate only on wave lengths up to 3 µ.

4. The type KRS-5 crystals produced in Jena have a permeability of 95 % after deducting reflex losses of 80 %. The permeability has no absorption maxima or minima and evenly extends from 0.8 to 0.4 µ. The absorption sets in below the 0.8 µ point. The quality of the material makes it possible to manufacture from it plane parallel glass 60 mm thick. Prior to the dismantling of the plant by the Soviets it had been possible to manufacture such glass up to a thickness of 120 mm. Ground prisms have not yet been manufactured in Jena. Prior to late 1953, no quartz crystals had been produced in autoclaves. It was doubted by Herr Dittner that the material required for autoclaves would ever be obtained by the firm. High-quality rust proof steels, which at a temperature of 500°C may be

subjected for weeks to a pressure of about 1,000 atmospheres, are required for use in autoclaves.

5. Work on the development of the electron-multiplier tube was continued. The first set including the mains unit was to be delivered to Jena University by mid-December 1954. In early January 1955, it was unknown whether the set had actually been delivered. The development of the equipment had been continued by Herr Hauenstein after Dr. Buch had gone to the Electric Engineering College at Ilmenau as a lecturer on vacuum techniques.

6. In the summer of 1954, many Czechs, Poles, Hungarians, and Rumanians visited the Zeiss Works in Jena.

7. By late 1954, real progress had been made on the development of the model Oprema electronic computer developed by Dr. Herbert Kortum at the Main Development Department (Entwicklungshauptabteilung) (EHL) in Jena. Dr. Kortum planned to concentrate the development of automatic control devices for machine tools in Jena. The EHL had already received an order for the development of automatic measuring and control devices for large lathes. Dipl. Ing. Dietrich of Development Bureau 9 worked on the project. Electric measuring sets were also said to be scheduled for development.

8. The model Oprema electronic computer, the operations of which could be preset, was to be put into operation on 1 May 1955. The equipment which is a "4-Address" (?) computer, was designed as a twin machine. The second electronic computer was scheduled to be completed in June 1955. The latter set is to be used at the Zeiss Works for the optical computing. Final decisions on the personnel to operate the set had not yet been taken.

9. In late January 1955, Dr. Ing. M. Joachim Lehmann of the Dresden Institute of Technology visited the Zeiss Works in Jena. On this occasion it was learned that Prof. Dr. Willers and Dr. Ing. Lehmann of the Dresden Institute of Technology developed two electronic computers which were built by the RFT-Geraetewerk at Chemnitz (apparatus plant for radio and telecommunication engineering techniques). The computer was a so-called one-address set operating at a speed eight times higher than that of the Oprema computer. Each of the sets built at Chemnitz is fitted with 600 triodes expressly manufactured for this purpose. Dr. Lehmann stated that the storage unit of the set still worked in an unsatisfactory way and that difficulties had also been experienced in the making of construction drawings. One of the sets produced was delivered to the Dresden Institute of Technology, while the other computer remained in Chemnitz. It was not intended to manufacture more of these electronic computers. Lehmann also said that Czechoslovakia had developed a new electronic computer designed as a 5-address relay computer with 10 contact planes.

10. On 10 March 1955, the Soviet Minister for Machine Construction attended by 6 to 8 persons including, allegedly, the Soviet Minister for Public Health visited the Zeiss Works and inspected the model Oprema electronic computer. Dr. Kortum and Dr. Wilhelm Kaemmerer wanted to explain the set to the Russians but the Soviet Minister of Machine Construction did not appear to be greatly interested in details. On 4 March, an Hungarian professor from Budapest visisted the Zeiss Works and inquired concerning the delivery terms for a model Oprema electronic computer. On 28 March, the computer was inspected by a correspondent of the Pravda newspaper who had come to Jena via

Bulgaria, Rumania, Hungary and Prague. He stated that the computer was the first real achievement seen by him during his trip. On 29 March, a Soviet official from Berlin who, according to Dr. Kortum, previously had been adviser to the Soviet Minister of Machine Construction, visited the Zeiss Works and also inspected the electronic computer. The Leuna Works were also greatly interested in an electronic computer of the type developed by the Zeiss Works.

11. Since early 1955, the most important project handled by EHL had been the development of a gyro-controlled aerial mapping camera. The development work was controlled by Dr. Kortum.

12. Development Bureau O of EHL, which was headed by Dipl. Ing. Dietrich, the successor to Oberingenieur Pulz and Dipl. Ing. Kratsch, is probably scheduled to develop electric measuring sets. Orders had, however, not been received by early March. Orders for the development of computers for artillery fire directors had likewise not been received.

13. In 1954, Dr. Kortum worked on the development of a receiver for infrared rays and made efforts to catch up with the technical achievements of the West in this field. The radiation receiver was to incorporate selenium cell which were designed to give the equipment a sensivity greater than that of American radiation receivers. This work, however, was discontinued.

14. At the ELO Laboratory of EHL, Mittig, a master mechanic, manufactured various shutters for bolometers. Purely development work was involved and many difficulties were apparently experienced.

15. Ing. Lonsky who is attached to Dipl. Ing. Dietrich stated that electron-multiplier tubes were being built at the Zeiss Works. Details were not available.

16. Air force training sets of type A_1 were being built at Dr. Ing. Knothe's Department (ELGM Department) of the Suelwerk (Southern Plant). During the last few years, the A_1 sets had repeatedly been modified. In March 1955, the construction records for the A_1 sets were checked and supplemented in great haste. It was believed possible that a KVP mission might have to be provided with acceptance records for the A_1 set. Some mechanics of the ELGM Department who had been detached to other departments were recalled in mid-March.

17. The electronic computer developed in Jena was set up on the second floor of the Zeiss Hochhaus (skyscraper), Entrance No. 6. The equipment was frequently inspected by commissions, in late January 1955 by a KVP commission.

[redacted] Comments: 25X1

1. Probably Dr. Alfred Eckardt.
2. Oprema = Optische Rechenmaschine. [redacted] 25X1
3. Not further identified.